CLAIMS

We claim:

1.   A control method relating to image formation, comprising the steps of:

judging whether a document written in a structured tag language comprises tags which can cause disagreement between the order in which the coordinate positions of objects are determined and the order in which the images of objects are formed;

performing control, when said tags are judged to be comprised, such that processing to form images is executed after the end of processing to determine coordinate positions; and

performing control, when said tags are judged not to be comprised, such that processing to determine coordinate positions and processing to form images are executed in parallel.

2.   A control method relating to image formation, comprising the steps of:

judging whether a document written in a structured tag language comprises tags which can impede the parallel execution of processing to determine the coordinate positions of objects and processing to form the images of objects;

performing control, when said tags are judged to be comprised, such that processing to form images is executed after the end of processing to determine coordinate positions; and

performing control, when said tags are judged not to be comprised, such that processing to determine coordinate positions and processing to form images are executed in parallel.

3.   The control method relating to image formation according to Claim 1 or Claim 2, wherein said judgment and said control are performed for the entire document or for a portion thereof according to the type of said tags.

4.   The control method relating to image formation according to Claim 1 or Claim 2, wherein said tags comprise at least one among "position"-type tags, "margin"-type tags, "line_height"-type tags, "img"-type tags, and "counter"-type tags.

5.   A control apparatus relating to image formation, comprising:

judgment means for judging whether a document written in a structured tag language comprises tags which can cause disagreement between the order in which the coordinate positions of objects are determined and the order in which the images of objects are formed; and

5   control means which, when said tags are judged to be comprised, performs control such that processing to form images is executed after the end of processing to determine coordinate positions, and, when said tags are judged not to be comprised, performs control such that processing to determine coordinate positions and processing to form images are executed in parallel.

10   6.   A control apparatus relating to image formation, comprising:

judgment means for judging whether a document written in a structured tag language comprises tags which can impede the parallel execution of processing to determine the coordinate positions of objects and processing to form the images of objects; and

15   control means which, when said tags are judged to be comprised, performs control such that processing to form images is executed after the end of processing to determine coordinate positions, and, when said tags are judged not to be comprised, performs control such that processing to determine coordinate positions and processing to form images are executed in parallel.

20   7.   A layout processing method, comprising:

a step of analyzing a document written in a structured tag language and extracting objects forming an image;

a step of determining the coordinate position of each object in the image; and

an object information output step of determining the order when each object is

25   arranged in a prescribed direction, based on the coordinate position of each object, and of outputting information for each object, comprising the coordinate position, according to said order.

8.   An image formation method, comprising:

a step of analyzing a document written in a structured tag language, and of

30   extracting objects forming an image;

a step of determining the coordinate position of each object in the image;

an object information output step of determining the order when each object is arranged in a prescribed direction, based on the coordinate position of each object, and of outputting information for each object, comprising the coordinate position, according to said order; and

5   an image generation step of generating an image based on the object information output by said object information output step,

wherein said image generation step generates, in the order of reception of object information, a partial image for a region preceding, in said prescribed direction, the coordinate position included in the object information.

10   9.   An image formation method, comprising:

a step of analyzing a document written in a structured tag language, and of extracting objects forming an image;

a step of determining the coordinate position of each object in the image;

an object information output step of determining the order when each object is

15   arranged in a prescribed direction, based on the coordinate position of each object, and of outputting information for each object, comprising the coordinate position, according to said order;

an instruction step of outputting a command specifying a coordinate position and instructing image generation; and

20   an image generation step of generating, based on object information output by said object information output step, a partial image up to a coordinate position specified by a command output by said instruction step,

wherein said instruction step specifies a coordinate position included in the object information previously output by said output step or included in the object

25   information to be output next by said output step, to output said command.

10.   The image formation method according to Claim 8 or Claim 9, wherein the order when arranging in said prescribed direction is the order of generation of a printing image, or the order of printing onto recording media.

11.   The image formation method according to Claim 8 or Claim 9, wherein

30   generation of a image by said image generation step comprises generation of a printing image in an image buffer, and/or printing onto recording media.

12.   A layout processing apparatus, comprising:

means for analyzing a document written in a structured tag language, and of extracting objects forming an image;

means for determining the coordinate position of each object in the image;

5   and

object information output means for determining the order when arranging each object in a prescribed direction, based on the coordinate position of each object, and of outputting information for each object, comprising the coordinate position, according to said order.

10   13.   An image formation apparatus, which, for each object forming an image, receives from a layout processing system object information comprising a coordinate position according to the order when arranging each object in a prescribed direction, and generates an image based on said information,

wherein partial images are generated, in the order of reception of object

15   information, for a region preceding, in said prescribed direction, a coordinate position included in the object information.